

U. S. F. C.
Records.

Nos. 858-901.

1880.

ORIGINAL LOG BOOK OF THE "FISH HAWK"

UNITED STATES FISH COMMISSION

STATION RECORDS

Numbers 858 to 901

Copy.

L.

U. S. Fish Commission.

Dredging Records.

1880.

Locs. 858 to

Sept. 1 to

All bearings in this
book are magnetic

Air temperatures taken
by a Gal. Green Thermometer
supplied by the Navy
Department, and corrected
within .5 of a deg. It was
placed in the open
field-house.

Chester Lake Dredge.

TEMPERATURE RECORD.

Instrument used, *Negretti-Gambr.*

Current number of observation, *858.*

Date, *Sept. 1, 1880.*

Locality, *Narragansett Bay*

Bearings, *Beaver Tail Lt., N. N. W.*

1/4 W., 1/3 mile.

Time of day, *1.05 P.M.*; of tide, *flood.*

State of sky, *clear.*

Temperature of air, *69.*

" surface of water, *63.* (*113.42666*)

" at depth of *10* fathoms, *66.5* (*113.40007*)

" of bottom, *66.* (*113.40007*)

Depth, in fathoms, *14.*

Nature of bottom, *shelly*

Direction of ~~surface current~~ *wind*, *S. E.*

Force of ~~surface current~~ *"*, *2.*

Direction of ~~bottom current~~ *Drift*, *E.*

~~Force of bottom current~~ *Dist* *"*, *1/4 mile.*

Name of vessel, *Fish Hawk.*

To what service attached, *U. S. F. C.*

Name and rank of commanding officer, *J. L. Tanner.*

Lieut., U. S. N.

Name and position of observer, *F. C. Vandikeit.*

M. D.

858

REMARKS.

Coarse sand, broken shells,
Cancer borealis.

Chester Rake Dredge

TEMPERATURE RECORD.

Instrument used, *Regatta-Zambra*
Current number of observation, *859.*
Date, *Sept. 3. 1880.*
Locality, *Vineyard Id.*
Bearings, *Cullyhunk Light, N. $\frac{1}{2}$ W.,
3 miles.*
Time of day, *11.20 am.*; of tide,
State of sky, *Clear.*
Temperature of air, *68°*
" surface of water, *66. (N. 3. 46400.*
" at depth of *5* fathoms, *65. (N. 3. 40007.*
" of bottom, *63. "*
Depth, in fathoms, *17 $\frac{1}{2}$*
Nature of bottom, *sand.*
Direction of ~~surface current~~ *wind S. W.*
Force of ~~surface current~~ *" 2.*
Direction of ~~bottom current~~ *drift W.*
Force of ~~bottom current~~ *dist. " $\frac{1}{4}$ mile.*
Name of vessel,
To what service attached,
Name and rank of commanding officer,
Name and position of observer,

859.

REMARKS.

Net caught over rake
Nothing in bag; but on rake
Ninose nigripes
Phascolosoma?
and in piece of lobster
pot brought up. large
specie of *Teredo*

Chester Rake Dredge
TEMPERATURE RECORD.

Instrument used, *Regrett's Zambra*

Current number of observation, *860.*

Date, *Sept. 3, 1880.*

Locality, *Vineyard Sound.*

Bearings, *Cullyhunk Pt., N. $\frac{1}{2}$ W.
3 miles.*

Time of day, *11.55 am.*; of tide,

State of sky, *clear.*

Temperature of air, *70.*

" surface of water, *66. (N. 3. 46400)*

" at depth of *5* fathoms, *65.° (N. 3. 40007)*

" of bottom, *64.*

Depth, in fathoms, *17 $\frac{1}{2}$*

Nature of bottom, *mod.*

Direction of ~~surface~~ ^{*mod*} current, *S. W.*

Force of ~~surface~~ ^{*"*} current, *2,*

Direction of ~~bottom~~ ^{*dip.*} current, *W.*

Dist. ^{*"*} Force of ~~bottom~~ ^{*"*} current, *$\frac{1}{4}$ m.*

Name of vessel,

To what service attached,

Name and rank of commanding officer,

Name and position of observer,

860

REMARKS.

Bag nearly full, ^{very} fine sand.
 slight admixture of mud.
 very rich in annelids and
 amphipods, and mollusks

Musculus bilinearis

Trawl
TEMPERATURE RECORD.

Instrument used, *Negretti-Zambra*

Current number of observation, *861.*

Date, *Sept. 22, 1880*

Locality, *Vineyard Is.*

Bearings, *Cuttyhunk Is., N. $\frac{3}{4}$ N.,
3 $\frac{3}{4}$ miles.*

Time of day, *12.20 P.M.*; of tide,

State of sky, *Clear.*

Temperature of air, *69,*

N. 3.
40007 " surface of water, *66.* (*N. 3, 46400.*
" at depth of *5* fathoms, *65.* (*10 f. - 65*
" of bottom, *61.* (*N. 3, 40007.*

Depth, in fathoms, *17.*

Nature of bottom, *sand.*

Direction of ~~surface current~~ *wind S. N.*

Force of ~~surface current~~ *2.*

Direction of ~~bottom current~~ *drift S.*

dist. " *1/4 mile.*

Name of vessel,

To what service attached,

Name and rank of commanding officer,

Name and position of observer,

861.

REMARKS.

Suberites compacta?

Soligo Realii

Homarus Americanus,

Asterias vulgaris.

Pecten tenuicostatus

Eupagurus Bernhardus.

Platyonichus ocellatus.

Cancer borealis

" *irroratus*

Pinnothere maculatus in Pecten

TEMPERATURE RECORD.

Instrument used, *Regatta-Zambra*

Current number of observation, *862*

Date, *Sept. 3^d 1880.*

Locality, *Vineyard Sound.*

Bearings, *Cuttyhunk Light.*
North, 4 miles.

Time of day, *12.55 P.M.*; of tide,

State of sky, *Clear.*

Temperature of air, *68.*

" surface of water, *66 (N. 3. 46400*

" at depth of *5* fathoms, *65. (N. 3. 40007.*

" of bottom, *64* "

Depth, in fathoms, *17.*

Nature of bottom, *Sand.*

Direction of ~~surface~~ ^{*wind*} current, *S. W.*

Force of ~~surface~~ ^{*"*} current, *2.*

Direction of ~~bottom~~ ^{*drift*} current, *S.*

Dist. drift
Force of bottom current, *1/4 m.*

Name of vessel,

To what service attached,

Name and rank of commanding officer,

Name and position of observer,

862

REMARKS.

Platyonichus ocellatus

Eupagurus Bernhardi

Cancer borealis

Homarus Americanus

Loligo Pealii. few,

Ciebella sanguinolenta
only a few of each of above

Asterias vulgaris. 12

Suberites compacta ?

Rake Breeze
TEMPERATURE RECORD.

Instrument used, *Regatta-Zambra,*

Current number of observation, *863,*

Date, *Sept. 3, 1880.*

Locality, *Vineyard Is.*

Bearings, *Cullyhunk Lt., N. $\frac{1}{8}$ E.
3 $\frac{3}{4}$ miles.*

Time of day, *1.40 P.M.*; of tide, *flood.*

State of sky, *Clear*

Temperature of air, *70.*

" surface of water, *67. (NB. 42600.*

NB. 40007. " at depth of 10 fathoms, *65° (57. 65°)*

" of bottom, *65 (NB. 40007.*

Depth, in fathoms, *18.*

Nature of bottom, *mud,*

Direction of ~~surface~~ ^{*wind*} current, *S. N.*

Force of ~~surface~~ ^{*"*} current, *2,*

Direction of ~~bottom~~ ^{*drift*} current, *S.*

N. E. " Force of ~~bottom~~ ^{*"*} current, *$\frac{1}{4}$ mile*

Name of vessel,

To what service attached.

Name and rank of commanding officer,

Name and position of observer,

863.

REMARKS.

Same as 860. very rich
Gordia limatula, very large,

Dredge

TEMPERATURE RECORD.

Instrument used, *Regatta-Zambra*

Current number of observation, *864*.

Date, *Sept. 3, 1880.*

Locality, *Vineyard Is.*

Bearings, *Gay Head Lt., S. S. W. $\frac{7}{8}$ N.*
5 $\frac{6}{10}$ miles.

Time of day, *3 P.m.* ; of tide, *flood.*

State of sky, *clear.*

Temperature of air, *70.*

" surface of water, *67.* (*N.B. 46400*

" at depth of *5* fathoms, *66.* (*N.B. 40007*

" of bottom, *65.* "

Depth, in fathoms, *13.*

Nature of bottom, *sand.*

Direction of ~~surface~~ ^{*wind*} current, *S. W.*

Force of ~~surface~~ ^{*"*} current, *2.*

Direction of ~~bottom~~ ^{*drift*} current, *2.*

Force of ~~bottom~~ ^{*drift*} current, *"*
 $\frac{1}{4}$ m.

Name of vessel,

To what service attached,

Name and rank of commanding officer,

Name and position of observer,

864.

REMARKS.

Sand and broken shells

Trawl

TEMPERATURE RECORD.

Instrument used, *Regatta-Zambra*
 Current number of observation, *865.*
 Date, *Sept. 4, 1880,*
 Locality, *Atlantic.*
 Bearings, *Lat. 40° 05' N,*
Long. 70° 23. West.
 Time of day, *5.40 am,* ; of tide,
 State of sky, *Clear.*
 Temperature of air, *71.*
 " surface of water, *73. (N.B. 46400*
 " at depth of *5* fathoms, *75. (N.B. 46401.*
 " of bottom, *68.5 (N.B. 46401.*
 Depth, in fathoms, *65.*
 Nature of bottom, *Compact fine sand mud.*
 Direction of ~~surface~~ ^{*wind*} current, *Var.*
 Force of ~~surface~~ ^{*drift*} current, *1.*
 Direction of ~~bottom~~ ^{*drift*} current, *E. N. E.*
 Force of ~~bottom~~ ^{*drift*} current, *3/4 mile*
 Name of vessel.
 To what service attached.
 Name and rank of commanding officer,
 Name and position of observer,

865.

REMARKS.

do. 7 lead, and Negretti-Zambra therm.
 No. 40007. in first East by party of wire.
 Archer sp. swimming abt.
 Aster vulgaris. (one)

Peristedium from spec.

A heavy swell, the
 ship rolling violently at
 times.

The Negretti-Zambra Thermom-
 eters are not reliable for
 bottom and intermediate
 temperatures, frequently being
 capsize by rolling of the
 ship.

J. L. Tanner.

TEMPERATURE RECORD.

Instrument used, *Regretté Zambra*

Current number of observation, *866.*

Date, *Sept. 4. 1880.*

Locality, *Atlantic*

Bearings, *Lat. 40° 05' 18" N,*

Long. 70° 22' 18" W.

Time of day, *6.30 am*; of tide,

State of sky, *Clear.*

Temperature of air, *73.*

" surface of water, *73.* *N. 3. 46400*

" at depth of *5* fathoms, *74.5.* *(N. 3. 46401*

" of bottom, *68.5 (?)* "

Depth, in fathoms, *65.*

Nature of bottom, *fine sand & mud.*

Direction of ~~surface current~~, *Var.*

Force of ~~surface current~~, *1. - 0.*

Direction of ~~bottom current~~, *N. E. by E.*

Force of ~~bottom current~~, *1/2 am.*

Name of vessel,

To what service attached,

Name and rank of commanding officer,

Name and position of observer, *Dr. F. C. Van Vleet.*

REMARKS.

Rake Bredge

TEMPERATURE RECORD.

Instrument used. *Regretté-Zambra*

Current number of observation. *867.*

Date. *Sept. 4, 1880.*

Locality, *Atlantic*

Bearings, *Lat. 40° 05' 42" N.*

Long. 70° 22' 06. W.

Time of day, *7.04 a.m.*; of tide,

State of sky. *Clear.*

Temperature of air. *75.*

" surface of water. *73. (N. 3. 46400 46401.)*

" at depth of *5* fathoms. *75° (N. 3. 46400 46401.)*

" of bottom. *53° (N. 3. 46400 46401.)*

Depth, in fathoms, *64,*

Nature of bottom, *Sand and mud.*

Direction of ~~surface~~ ^{*wind*} current, *Calm.*

Force of surface current.

Direction of ~~bottom~~ ^{*dir.*} current,

E. S. E.

~~Force~~ ^{*dir.*} of bottom current,

2 1/4 miles.

Name of vessel,

To what service attached.

Name and rank of commanding officer,

Name and position of observer,

J. d. Tanner

867.

REMARKS.

Compact hard
Salt and broken shells.

Trawl
TEMPERATURE RECORD.

Instrument used, *Regatta Zambra*
Current number of observation, *868*,
Date, *Sept. 4, 1880*.
Locality, *Atlantic*
Bearings, *Lat. 40° 01' 42" N.*
Long. 70° 22' 30" W.
Time of day, *8.23 am*; of tide,
State of sky, *Clear*.
Temperature of air, *75*.
" surface of water, *75° (N.B. 46400.*
" at depth of *5* fathoms, *75. (N.B. 46401.*
" of bottom, *47.* "
Depth, in fathoms, *162*.
Nature of bottom, *fine sand & black specks.*
Direction of ~~surface current~~ *wind*, *calm*.
Force of surface current.
Direction of ~~bottom current~~ *drip*, *N. N.*
drift " *2 1/4 miles*
Force of bottom current.
Name of vessel,
To what service attached,
Name and rank of commanding officer,
Name and position of observer, *J. d. Tanner*.

868

REMARKS.

From 162 into deep water
 from bottom.
 but ^{significantly} deep? from inter-
 mediate

Trawl

TEMPERATURE RECORD.

Instrument used, *Regretté-Zambra*.

Current number of observation, *8691*.

Date, *Sept. 4, 1880*.

Locality, *Atlantic*.

Bearings, *Lat. 40° 02' 18" N*.

Long. 70° 23' 06. N.

Time of day, *9.27 am*; of tide.

State of sky, *Clear*.

Temperature of air, *80*.

" surface of water, *76*. (*N. 3. 46400*,

" at depth of *5* fathoms, *75* (*N. 3. 46401*.

" of bottom, *50 (?)* "

Depth, in fathoms, *192*.

Nature of bottom, *fine sand*.

Direction of ~~surface~~ *wind* *calm*.

Force of surface current,

Direction of ~~bottom~~ *drift* *N. N. E.*

Force of ~~bottom~~ *drift* *3/4 mile*.

Name of vessel,

To what service attached,

Name and rank of commanding officer,

Name and position of observer, *J. d. Tanner*

869.

REMARKS.

Very Rich.
Favouring Nat. coprus.

870. *Frank*

TEMPERATURE RECORD.

Instrument used, *Requett's*

Current number of observation, *870.*

Date, *Sept. 4, 1880.*

Locality, *Atlantic.*

Bearings, *Lat. 40° 02' 36" N,*
Long. 70° 22' 58" W.

Time of day, *10.50 a.m.* of tide,

State of sky, *Clear.*

Temperature of air, *80.*

" surface of water, *77* (*N.B. 46400.*)

" at depth of *5* fathoms, *75.* (*N.B. 46401.*)

" of bottom, *No obs.*

Depth, in fathoms, *155.*

Nature of bottom, *coarse and fine sand.*

Direction of ~~surface current~~ *wind* *Calm*

Force of surface current.

Direction of ~~bottom current~~ *drift*

drift *N. by N.*

Name of vessel,

To what service attached,

Name and rank of commanding officer,

Name and position of observer, *J. d. Tanner.*

870.

REMARKS.

Leaving net at 5 p.m.

Frawle
TEMPERATURE RECORD.

Instrument used *Requetti-Zambra*

Current number of observation, *871*

Date, *Sept, 4, 1880.*

Locality, *Atlantic*

Bearings—*Lat. 40° 02' 54" N. } Lon. Lat. 70° 23' 40" W.*

(Lat. merid. obs. 40° 04' 57" N.)

Time of day, *11.40 a.m.* of tide,

State of sky, *Clear.*

Temperature of air, *84*

N.B. 46401 { surface of water, *76.5* (*N.B. 46400.*)
at depth of *5* fathoms, *75*, (*10 f. 75°*)
of bottom, *49*. (*N.B. 46401*)

Depth, in fathoms, *115.*

Nature of bottom, *fine sand.*

Direction of ~~surface~~ ^{*wind*} current, *calm.*

Force of ~~surface~~ ^{*"*} current, *"*

Direction of ~~bottom~~ ^{*drift*} current, *N. N. W.*

Force of ~~bottom~~ ^{*drift*} current, *3/4 mile.*

Name of vessel,

To what service attached,

Name and rank of commanding officer,

Name and position of observer, *J. d. Tanner*

871.
REMARKS.

Doing but 20 fms.

Trawl

TEMPERATURE RECORD.

Instrument used *Regatta-Gamtra*

Current number of observation, *872*.

Date, *Sept, 4, 1880.*

Locality, *Atlantic.*

Bearings. *Lat. 40° 05' 39" N*

Long. 70° 23' 52" W.

Time of day, *12.45 P.M.* of tide,

Status of sky. *Partially clear.*

Temperature of air. *81.*

" surface of water. *77* (*N. 3. 46400.*

" at depth of *5* fathoms. *75.* (*N. 3. 46407.*

" of bottom, *50, 5.* "

Depth, in fathoms, *86.*

Nature of bottom. *sand, gravel, shells, sponges,*

Direction of surface ~~current~~, *Wind South.*

Force of surface current, *1,*

Direction of ~~bottom~~ *drift*, *N. N. by N.*

Force of bottom current, *1/2 mile*

Name of vessel,

To what service attached.

Name and rank of commanding officer,

Name and position of observer, *J. A. Smith.*

872.

REMARKS.

Males fish (5) 2 specimens

Trawl.
TEMPERATURE RECORD.

Instrument used, *Negretti-Zambra*

Current number of observation, *873.*

Date, *Sept. 13, 1880.*

Locality, *Atlantic.*

Bearings, *Lat. 40° 02' N.*

Long. 70° 57' W

Time of day, *5.36 am.*; of tide,

State of sky, *clear.*

Temperature of air, *68.*

N. 3. 46400. surface of water, *69.5 (N. 3. 46404*
at depth of *5* fathoms, *70° (10 f. 70°*
of bottom, *51. N. 3. 46400.*

Depth, in fathoms, *100.*

Nature of bottom, *mud.*

Direction of ~~surface current~~ *und* *S. W.*

Force of ~~surface current~~ *3.*

Direction of ~~drift~~ *drift* *N. W. by N.*

Force of bottom ~~current~~ *drift* *1/2 mile.*

Name of vessel,

To what service attached,

Name and rank of commanding officer,

Name and position of observer,

REMARKS.

Nos 873-877 24th slide
 must. very similar in
 character throughout,
 and with about the
 same assemblage of
 life. Two of the brachiopods
 had but little in them,
 but it was all the same.

Frank

TEMPERATURE RECORD.

Instrument used. *Regatta Zumbra*

Current number of observation. *874.*

Date, *Sept. 13, 1888.*

Locality, *Atlantic*

Bearings, *Lat. 40° N.*

Long. 70° 57' W.

Time of day, *6.26 am*; of tide,

State of sky, *clear*

Temperature of air, *70°*

70 surface of water, *70 (N. 3. 46404.*
40400 at depth of *5* fathoms, *70.5° (10 f. 70° X*
of bottom, *51.* *(N 3. 46400*

Depth, in fathoms, *85.*

Nature of bottom, *mud.*

Direction of *min* *S. W.*

Force of *"* *2.*

Direction of *drift* *N. W.*

Dist. *"* *1/2 mile.*

Force of bottom current,

Name of vessel,

To what service attached,

Name and rank of commanding officer,

Name and position of observer,

204. 64° - 407. 55°

REMARKS.

Travel

TEMPERATURE RECORD.

Instrument used, *Repetit Zambra*

Current number of observation, *875*

Date, *Sept. 13. 1880.*

Locality, *Atlantic*

Bearings, *Lat. 39° 57' N.*

Long. 70° 57' 20" W.

Time of day, *7.51 am*; of tide.

State of sky, *clear.*

Temperature of air, *70.*

N3, 46400. surface of water, *70.* *N. 3. 46404.*
at depth of *5* fathoms, *71° (10 f. 70° x*
" of bottom, *53.* *N 3. 46400.*

Depth, in fathoms, *126.*

Nature of bottom, *mud.*

Direction of *wind* *S. W.*

Force of *surface* current, *2.*

Direction of *Drift* *N. E.*

Dist, " *1/2 mile*

Name of vessel.

To what service attached.

Name and rank of commanding officer,

Name and position of observer,

20 f. 69° - 30 f. 54°

REMARKS.

2

Trawl

TEMPERATURE RECORD.

Instrument used. *Requiti-Zambra*

Current number of observation, *876.*

Date, *Sept. 13, 1880.*

Locality, *Atlantic.*

Bearings, *Lat. 39° 57' N.*

Long. 70° 56' W.

Time of day, *8.45 am.* of tide,

State of sky, *clear.*

Temperature of air, *68*

" surface of water, *70.* (*N.B. 46404*

N.B. 46400. at depth of *5* fathoms, *71.* (*10 f. 70° x*

" of bottom, *53.* *N.B. 46400.*

Depth, in fathoms, *120.*

Nature of bottom, *med.*

Direction of ~~surface~~ *wind* current, *S. W.*

Force of ~~surface~~ *drift* current, *2.*

Direction of ~~bottom~~ *drift* current, *N.*

Dist. " *2 1/4 miles*

Name of vessel,

To what service attached.

Name and rank of commanding officer,

Name and position of observer,

* *20 f. 69° = 30 f. 54°.*

REMARKS.

France

TEMPERATURE RECORD.

Instrument used, *Regretté Zambra.*

Current number of observation, *877.*

Date, *Sept. 13, 1880.*

Locality, *Lat. 39° 56' N.*

Bearings, *Long. 70° 54' 18" W.*

Time of day, *9.40 am*; of tide,

State of sky, *clear.*

Temperature of air, *71.*

N.B. 46400 surface of water, *71.* (*N.B. 46404*
at depth of *5* fathoms, *78°* (*107. 70°*
of bottom, *57.* (*296.66°*
N.B. 46400.

Depth, in fathoms, *126.*

Nature of bottom, *mud.*

Direction of ~~surface current~~, *wind S.W.*

Force of ~~surface current~~, *2.*

Direction of ~~bottom current~~, *trip N.N.W.*

Dist. " *3/4 m.*

Name of vessel,

To what service attached,

Name and rank of commanding officer,

Name and position of observer,

REMARKS.

Trawl

TEMPERATURE RECORD.

Instrument used, *Regatta-Zambra and Miller-Casella.*

Current number of observation, *878.*

Date, *Sept, 13, 1880.*

Locality, *Atlantic.*

Bearings, *Lat, 39° 55' N,*

Long. 70° 54' 15" W.

Time of day, *11 am.*; of tide,

State of sky, *cloudy.*

Temperature of air, *72.*

" surface of water, *71. (N.S. + 6404,*

" at depth of *5* fathoms *N.S. 70, S 10, N.S. 70, X*
m.c. 66. 5 10 m.c. 70.

" of bottom, *52. N.S. + 6400,*

48. m.c.
Depth, in fathoms, *142 1/2*

Nature of bottom, *mud.*

Direction of ~~surface current~~ *wind*, *S. W.*

Force of ~~surface current~~ *"*, *2*

Direction of ~~bottom current~~ *Drift*, *E. N. W.*

Dist. *"*, *3/4 m.*
Force of ~~bottom current~~

Name of vessel,

To what service attached.

Name and rank of commanding officer,

Name and position of observer,

x
2 of N.S. 55.
2 of m.c. 55-

REMARKS.

Trawl

TEMPERATURE RECORD.

Instrument used, *Regatta Bunker & Miller Casella*

Current number of observation, *879*

Date, *Sept. 13, 1880.*

Locality, *Atlantic.*

Bearings, *Lat. 39° 49' 30" N,
Long. 70° 54' W.*

Time of day, *1.20 PM*; of tide,

State of sky, *Cloudy.*

Temperature of air, *73.*

" surface of water, *71.5. N. 3. 46404.*

" at depth of *5* fathoms, *N. 3. 71. 510 N. 3. 71. x*

N. 3. 46400 of bottom, *N. 3. 42. m.c. 42*

Depth, in fathoms, *225*

Nature of bottom, *sand & blue mud.*

Direction of *wind* *S. W.*

Force of *"* *3.*

Direction of *drift* *N. by N.*

drift *"* *3/4 m.*

Name of vessel.

To what service attached.

Name and rank of commanding officer,

Name and position of observer,

** 204 N. 3. 70.
V. m.c. 70.*

879.

REMARKS.

Large quantities of birds
mostly larks.

Bolocera fusca

Utricularia ~~*crassipes*~~ ?

Trawl
TEMPERATURE RECORD.

Instrument used,

McKen Casella,
Agretti Zambra and

Current number of observation,

880.

Date,

Sept. 13, 1880.

Locality,

Atlantic

Bearings,

Lat. 39° 48' 30" N,
Long. 70° 54' W

Time of day, *3.12 P.M.*; of tide,

State of sky,

Cloudy.

Temperature of air,

74.

" surface of water,

71.5 (N. 3, 46 40 2

" at depth of *5* fathoms,

N. 3, 74, 16 1/2 10 1/2

" of bottom,

N. 3, 43; N. 2, 41.5 - { N. 3, 46 40 2

Depth, in fathoms,

25 2 1/2

Nature of bottom,

mu.

Direction of ~~surface~~ ^{current} current,

S. W.

Force of ~~surface~~ ^{current} current,

3.

Direction of ~~bottom~~ ^{drift} current,

N. by N.

Force of ~~bottom~~ ^{drift} current,

3/4 mi.

Name of vessel,

To what service attached,

Name and rank of commanding officer,

Name and position of observer,

580.

REMARKS.

Very Rich, Large quantities
of a canella. and very
brown lutes.

Bolocera Tenebric.
Mithana (very large)
no rabbit octopus.

Is-ndol
TEMPERATURE RECORD.

Instrument used *Reynolds Zamboni*
Thermometer

Current number of observation. *887*

Date, *Sept. 13. 1880.*

Locality, *Atlantic*

Bearings. *Lat. 39° 46' 30" N*
Long. 70° 54' W.

Time of day, *5 PM.*; of tide,

State of sky, *Cloudy.*

Temperature of air, *70.*

" surface of water, *71 (723, 46 404)*

" at depth of *5 fathoms*, *71.5*
66 } 10 f. 71.5

" of bottom, *N. 3, 4 2*
M. C. 41,

Depth, in fathoms, *328.*

Nature of bottom,

Direction of ~~surface~~ *surface* current, *S. W.*

Force of ~~surface~~ *surface* current, *3*

Direction of ~~bottom~~ *bottom* current, *N. N. W.*

Force of ~~bottom~~ *bottom* current, *1/2 m*

Name of vessel,

To what service attached,

Name and rank of commanding officer,

Name and position of observer,

887,

REMARKS.

Trawl fouled, and but little
came up.

Acanella.

Archaster? sp.

Webbed octopus.

Urticina medusa?

Very rich bottom
apparently.

Trawl
TEMPERATURE RECORD.

Instrument used, ~~88~~ Negretti Zambra
Current number of observation, 882
Date, Sept. 17, 1880.
Locality, Narayanpet Bay
Bearings, Halfway Rock N. N. E. $\frac{1}{2}$ E.
2 $\frac{3}{8}$ miles.
Time of day, 10.56 A.M.; of tide,
State of sky, Clear.
Temperature of air, 68.
" surface of water, 65° (113.46402
" at depth of fathoms,
" of bottom, 67. (113.46400
Depth, in fathoms, 12 $\frac{1}{2}$
Nature of bottom, mud.
Direction of surface current, wind S. W.
Force of surface current, " 2.
Direction of bottom current, drift, S. W.
~~Distance~~
Force of bottom current, " $\frac{1}{4}$ mile
Name of vessel,
To what service attached,
Name and rank of commanding officer,
Name and position of observer,

882

REMARKS.

Lycotypus canaliculatus
Asterias forbesii
Eupagurus pollicaris
Metridium marginatum
Foligo Reali (young)
Libinia emarginata (young)
Cyprina Islandica (dead)
Callista convexa "
Cribrella sanguinolenta (new)

Trawl

TEMPERATURE RECORD.

Instrument used, *Negretti-Zamboni*

Current number of observation, *883.*

Date, *Sept. 17,*

Locality, *Narragansett Bay*

Bearings, *Halfway Rock N. E. by N., 2 1/4 miles.*

Time of day, *11, 35^{am}*; of tide,

State of sky, *clear.*

Temperature of air, *70*

" surface of water, *65 (N. 3, 46452*

" at depth of fathoms,

" of bottom, *63 1/2 (N. 3, 46400*

Depth, in fathoms, *13.*

Nature of bottom, *mud.*

Direction of surface current, *wind S. W.*

Force of surface current, *" 2,*

Direction of *drift* bottom current, *S. W.*

Dist " Force of bottom current, *1/2 m.*

Name of vessel,

To what service attached,

Name and rank of commanding officer,

Name and position of observer,

888.

REMARKS.

About same things as in 882.

Homarus americanus

Squilla

Lotus Reali

Eupagurus longicaudus

Chester Lake Dredge

TEMPERATURE RECORD.

Instrument used, *Refractometer*
Current number of observation, *884*
Date, *Sept. 17, 1880*
Locality, *Narragansett Bay*
Bearings, *Hope S. N. E. 1/2 E.*
200 yds.
Time of day, *2.10 P.M.*; of tide,
State of sky, *Clear.*
Temperature of air, *72*
" surface of water, *65*, (*N. 46402*)
" at depth of fathoms,
" of bottom, *63.5* (*N. 46400*)
Depth, in fathoms, *5.*
Nature of bottom, *Mud*
Direction of ~~surface current~~, *wind, S. W.*
Force of ~~surface current~~, *" 3.*
Direction of ~~bottom current~~, *drift - S. W.*
Force of ~~bottom current~~, *" 1/4 m.*
Name of vessel,
To what service attached,
Name and rank of commanding officer,
Name and position of observer,

REMARKS.

Officer Travel
TEMPERATURE RECORD.

Instrument used, *Repeating Zumbra*
Current number of observation, *885*
Date, *Sept. 17, 1880.*
Locality, *Narragansett Bay*
Bearings, *Point S. N. by E. $3\frac{1}{4}$ E.*
3/8 mile
Time of day, *3:15 P.M.*; of tide,
State of sky, *Clear*
Temperature of air, *71.* (*Ny 46402*)
" surface of water, *69.*
" at depth of *5* fathoms, *64* (*Ny 46400*)
" of bottom, *65* "
Depth, in fathoms, *16*
Nature of bottom, *mud & shells.*
Direction of ~~surface current~~, *Wind S.W.*
Force of ~~surface current~~, " *2.*
Direction of ~~bottom current~~, *Drift S.*
Force of ~~bottom current~~, " *1/4 m.*
Name of vessel,
To what service attached,
Name and rank of commanding officer,
Name and position of observer,

REMARKS.

Dredge

TEMPERATURE RECORD.

Instrument used, *Repetier's thermometer*

Current number of observation, *886*

Date, *Sept. 21,*

Locality, *off Block 2*

Bearings, *South by East, Block 2. N. 3/4 E.
5 3/4 miles.*

Time of day, *12.49 P.M.* of tide.

State of sky, *Clear.*

Temperature of air, *67.*

" surface of water, *64 (11.3, 46.402)*

" at depth of *5* fathoms, *62 (11.3, 46.400)*

" of bottom, *62,* "

Depth, in fathoms, *19.*

Nature of bottom, *Shells.*

Direction of surface current, *wind North*

Force of surface current, " *2*

Direction of bottom current, *drift - N.*

Force of bottom current, " *1/4 m*

Name of vessel,

To what service attached,

Name and rank of commanding officer,

Name and position of observer,

886, Bridge

REMARKS.

Very poor, hard land.
Stenotaphrum secundatum
Eleusine indica
Cyperus sp. quin.

Trawl

TEMPERATURE RECORD.

Instrument used, *Refractometer*

Current number of observation, *887*

Date, *Sept. 21*

Locality, *off Block J.*

Bearings, *South Light, Block J. N. 1/2 W.
5 3/4 miles*

Time of day, *1.30 P.M.*; of tide,

State of sky, *Clear*

Temperature of air, *67.*

" surface of water, *64* (*W. 46402*)

" at depth of *5* fathoms, *62* (*W. 46409*)

" of bottom, *62* "

Depth, in fathoms, *19.*

Nature of bottom, *Shells*

Direction of ~~surface~~ current, *wind N.*

Force of ~~surface~~ current, " *2*

Direction of ~~bottom~~ current; *Drift - N.*

Wind
Force of ~~bottom~~ current, " *3/4 m.*

Name of vessel,

To what service attached,

Name and rank of commanding officer,

Name and position of observer,

887 *Small*

REMARKS.

Like former.

Echinarachnium parvum

Asterias vulgaris

Pecten tenuicostatus

Phacelodonta Cuneata

Astarte

Venericardia Cornuta

Trawl.
TEMPERATURE RECORD.

Instrument used, *Megretti Zambra*

Current number of observation, *888.*

Date, *Sept. 21, 1880,*

Locality, *off Block I.*

Bearings, *South Light Block I,*
N. by E., 6 miles.

Time of day, *2 P.M.,* ; of tide,

State of sky, *clear.*

Temperature of air, *68*

" surface of water, *64* (*Wz. 46402*

" at depth of *5* fathoms, *62* (*Wz. 46403*

" of bottom, *62* "

Depth, in fathoms, *19.*

Nature of bottom, *Shells.*

Direction of surface current, *Wind. W.*

Force of surface current, " *3.*

Direction of bottom current, *drift W.*

Force of bottom current, " *1 1/2 m*

Name of vessel,

To what service attached,

Name and rank of commanding officer,

Name and position of observer,

888. Fowl

REMARKS.

Same as last very poor

Dredge
TEMPERATURE RECORD.

Instrument used, *Megrette Zambra*

Current number of observation, *889.*

Date, *Sept. 21.*

Locality, *off Block J.*

Bearings, *South Light Block J.,*
N. 1/4 S. 5 miles.

Time of day, *3.50 PM*; of tide,

State of sky, *clear.*

Temperature of air, *68*

" surface of water, *64* (*Ny, 46402*

" at depth of *5* fathoms, *62* (*Ny, 46400*

" of bottom, *61.5* "

Depth, in fathoms, *11.*

Nature of bottom, *Rocky.*

Direction of surface current, *low N.*

Force of surface current, " *3.*

Direction of ~~bottom~~ current, *drift N. S. W.*

Drift
Force of ~~bottom~~ current, " *1/2 m*

Name of vessel,

To what service attached,

Name and rank of commanding officer,

Name and position of observer,

REMARKS.

Hard sand. Some Rocks.

Dredge

TEMPERATURE RECORD.

Instrument used, *Reynolds' Janitor*

Current number of observation, *890.*

Date, *Sept. 21, 1880.*

Locality, *off Block I,*

Bearings, *South Light Block I,*

N. 1/4 S. 4 3/4 miles,

Time of day, *4.15 P.M.* of tide,

State of sky, *Clear.*

Temperature of air, *68.*

" surface of water, *64. (N₂, 46402*

" at depth of *5* fathoms, *62 (N₂, 46400*

" of bottom, *61.5 (N₂, 46400*

Depth, in fathoms, *11*

Nature of bottom, *Rocky,*

Direction of surface current, *Wind N.*

Force of surface current, *" 3*

Direction of bottom current, *Drift N. S. W.*

Force of bottom current, *" 1/2 m*

Name of vessel,

To what service attached,

Name and rank of commanding officer,

Name and position of observer,

REMARKS.

landed some rocks

Trawl
TEMPERATURE RECORD.

Instrument used, *Repeating Zamboni*

Current number of observation, *891.*

Date, *Oct. 2, 1880.*

Locality, *Atlantic*

Bearings, *Lat. 39° 46' N*
Long. 71° 10' W

Time of day, *6 am.*; of tide,

State of sky, *Clear*

Temperature of air, *60*

" surface of water, *67*

" at depth of fathoms,

" of bottom,

Depth, in fathoms, *Sounding line broke at 310 +.*

Nature of bottom, *mud.*

Direction of ~~surface~~ current, *wind NE.*

Force of ~~surface~~ current, " *3.*

Direction of ~~bottom~~ current, *Drift - N.*

Drift
Force of ~~bottom~~ current, " *1/2 m*

Name of vessel,

To what service attached,

Name and rank of commanding officer,

Name and position of observer,

891.

REMARKS.

Soft brown mud.

Not much variety, but
abundant of small shells etc.,
Foraminifera. 3 species Copepod.The sounding for No 892
was 480 fathoms and
this is probably the depth
of this one also.Long by observation
Lat. by Do (noon)

Trawl
TEMPERATURE RECORD.

Instrument used, *Regatta - Fannin*
Current number of observation, *892*
Date, *Oct 2 1880*
Locality, *Atlantic,*
Bearings, *Lat. 39° 46' N*
Long. 71° 05' W.
Time of day, *8:46 am;* of tide,
State of sky, *Clear.*
Temperature of air, *64.*
" surface of water, *65.*
" at depth of fathoms,
" of bottom, *Loose lead when at surface*
Depth, in fathoms, *487.*
Nature of bottom,
Direction of ~~surface~~ current, *Wind NE,*
Force of ~~surface~~ current, *" 3,*
Direction of ~~bottom~~ current, *Drift - N. N. E.,*
Dist
Force of bottom current, *" 2 miles,*
Name of vessel,
To what service attached,
Name and rank of commanding officer,
Name and position of observer,

89-

REMARKS.

Left from road
Some small stones.

Trawl
TEMPERATURE RECORD.

Instrument used, *Refracting thermometer*
Current number of observation, *893*
Date, *Oct. 2, 1880,*
Locality, *Atlantic*
Bearings, *Lat. 39° 52' 20" N,*
Long. 70° 58' W,
Time of day, *11.23* *am* of tide,
State of sky, *Clear*
Temperature of air, *63*
" surface of water, *64*
" at depth of _____ fathoms,
" of bottom, *40. m. c.*
Depth, in fathoms, *372*
Nature of bottom, *mu. s.*
Direction of surface current, *Wind N.E.,*
Force of surface current, *" 3'*
Direction of bottom current, *Drift - N,*
Dist -
Force of bottom current, *" 1 mile*
Name of vessel,
To what service attached,
Name and rank of commanding officer,
Name and position of observer,

893.

REMARKS.

Mud small clams
Very Rich,
Alcanella.
Nereis tubes.
Octopus
" webbed.
Archaeus?

Time of descent of lead
in sounding every one-
half fathoms. seconds
46, 46, 50, 53, 52, 55.
Tide hauling 8' 15"

Trawl

TEMPERATURE RECORD.

Instrument used, *Miller camera*

Current number of observation, *894*

Date, *Oct. 2, 1880*

Locality, *Atlantic*

Bearings, *Lat. 39° 53' N*
Long. 70° 58' 30" W.

Time of day, *1.10 PM*; of tide,

State of sky, *Clear*

Temperature of air, *63.*

" surface of water, *64.*

" at depth of fathoms,

" of bottom, *40. m.c.*

Depth, in fathoms, *365.*

Nature of bottom, *Sand*

Direction of ~~surface current~~ *Wind NE,*

Force of ~~surface current~~ *" 3*

Direction of ~~bottom current~~ *Drift N,*

East
Force of ~~bottom current~~ *2 m*

Name of vessel,

To what service attached,

Name and rank of commanding officer,

Name and position of observer,

Long. by observation

REMARKS.

Mud and small clong
very Rich

Franch
TEMPERATURE RECORD.

Instrument used,

Miller Casella

Current number of observation,

895

Date,

Oct. 2, 1880

Locality,

Atlantic

Bearings,

Lat. $39^{\circ}56'30''$ N

Long. $70^{\circ}59'45''$ W

Time of day, 3.17 P.M.; of tide,

State of sky,

Clear

Temperature of air,

62

surface of water,

65

at depth of

fathoms,

of bottom,

42

M.C.

Depth, in fathoms,

238

Nature of bottom,

Mud

Direction of surface current,

Wind N.W.

Force of surface current,

" 3'

Direction of bottom current,

Drift N

Force of bottom current,

Set

$1\frac{1}{2}$ mi.

Name of vessel,

To what service attached,

Name and rank of commanding officer,

Name and position of observer,

Log. by observation

REMARKS.

Soft mud, about 2 fms.
Multitudes of *Telabellum*
Goodce, broken into
small pieces.
Worm tubes.
Sedimentum, etc.
Very Rich.

Trawl
TEMPERATURE RECORD.

Instrument used,

Current number of observation,

896.

Date,

Nov. 16, 1880.

Locality,

Bearings,

Lat. $37^{\circ} 26'$ N.

Long. $74^{\circ} 19'$ W.

(19')

Time of day,

; of tide,

State of sky,

Temperature of air,

" surface of water,

" at depth of fathoms,

" of bottom,

Depth, in fathoms, 56.

Nature of bottom, sand, shells.

Direction of surface current,

Force of surface current,

Direction of bottom current,

Force of bottom current,

Name of vessel,

To what service attached,

Name and rank of commanding officer,

Name and position of observer,

REMARKS.

Trans
TEMPERATURE RECORD.

Instrument used,

Current number of observation,

897.

Date, *Nov. 16, 1880.*

Locality,

Bearings,

*Lat. 37° 25' N
Long. 74° 18' W.*

Time of day, ; of tide,

State of sky,

Temperature of air,

" surface of water,

" at depth of fathoms,

" of bottom,

Depth, in fathoms, *157 1/2*

Nature of bottom, *sand, mud*

Direction of surface current,

Force of surface current,

Direction of bottom current,

Force of bottom current,

Name of vessel,

To what service attached,

Name and rank of commanding officer,

Name and position of observer,

REMARKS.

Trawl
TEMPERATURE RECORD.

Instrument used,

Current number of observation,

898.

Date, *Nov. 16. 1880.*

Locality,

Bearings, *Lat. 37° 24' N.*

Long. 74° 17' W.

Time of day, ; of tide,

State of sky,

Temperature of air.

" surface of water,

" at depth of fathoms,

" of bottom,

Depth, in fathoms, *Too (approx.)*

Nature of bottom, *mud*

Direction of surface current,

Force of surface current,

Direction of bottom current,

Force of bottom current,

Name of vessel,

To what service attached,

Name and rank of commanding officer,

Name and position of observer,

REMARKS.

Trawl
TEMPERATURE RECORD.

Instrument used,

Current number of observation, *899.*

Date, *Nov, 16, 1880,*

Locality,

Bearings, *Lat, 37° 22' N*
Long, 74° 29' W.

Time of day, ; of tide,

State of sky,

Temperature of air.

" surface of water.

" at depth of fathoms,

" of bottom,

Depth, in fathoms, *57 1/2*

Nature of bottom, *Sand.*

Direction of surface current,

Force of surface current,

Direction of bottom current,

Force of bottom current,

Name of vessel,

To what service attached,

Name and rank of commanding officer,

Name and position of observer,

REMARKS.

Trawl
TEMPERATURE RECORD.

Instrument used,

Current number of observation, *900.*

Date, *Nov. 16, 1880.*

Locality,

Bearings, *Lat. 37° 19' N*
Long. 74° 41' W.

Time of day, ; of tide,

State of sky,

Temperature of air,

“ surface of water,

“ at depth of fathoms,

“ of bottom,

Depth, in fathoms, *31.*

Nature of bottom, *sand*

Direction of surface current,

Force of surface current,

Direction of bottom current,

Force of bottom current,

Name of vessel,

To what service attached,

Name and rank of commanding officer,

Name and position of observer,

REMARKS.

Trawl.
TEMPERATURE RECORD.

Instrument used,

Current number of observation, *901.*

Date, *Nov. 16. 1880.*

Locality,

Bearings, *Lat. 37° 10' N*
Long 75° 08' W.

Time of day, ; of tide,

State of sky,

Temperature of air,

" surface of water,

" at depth of fathoms,

" of bottom,

Depth, in fathoms, *18,*

Nature of bottom, *Sand.*

Direction of surface current,

Force of surface current,

Direction of bottom current,

Force of bottom current,

Name of vessel,

To what service attached,

Name and rank of commanding officer,

Name and position of observer,

— Close year 1880 —

REMARKS.